

REMARKS

The Office Action mailed May 21, 2004 and references cited therein have been reviewed.

Applicant amended claims 1, 2, 11-17, 21, 25-28, 32, 33, 36-41, 44, 46-48, 53, 54, 60 and 61 to correct grammatical errors. Claim 44 was also amended to include the limitations of claim 45 and claim 45 was canceled.

The Examiner rejected claims 1, 2, 7, 14, 16, 18, 19, 21 and 23 under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (APA) in view of Ellis 5,439,386 and Israel 4,466,610. Claims 8-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over the APA in view of Ellis, Israel and Herrmann 4,090,759. Claim 11 was rejected under 35 U.S.C. 103(a) as being unpatentable over the APA in view of Ellis and Glover 3,824,526. Claim 12 was rejected under 35 U.S.C. 103(a) as being unpatentable over the APA in view of Ellis, Israel, Herrmann and Glover. Claims 13, 15, 17 and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over the APA in view of Ellis, Herrmann, Israel and Glover. Finally, claims 23-64 were rejected under 35 U.S.C. 103(a) as being unpatentable over the APA in view of Ellis, Herrmann, Israel and Glover.

A. Nonanalogous References

Applicant asserted in the previously filed amendment that Ellis and Israel were nonanalogous art. Applicant expands this assertion to also include Glover and Herrmann.

The MPEP 2141.01(a) and the cited cases therein define the standard for identifying analogous art for use in supporting a rejection under 35 USC 103. The Federal Circuit has held that in order for an examiner to rely on a reference as a basis for rejecting an invention, the reference must either be in the field of the applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor is concerned. *In re Oetiker*, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). The Federal Circuit further stated that the PTO must consider the reality of the

circumstances –use common sense– in deciding which fields a person of ordinary skill would reasonable be expected to look for a solution to the problem facing the inventor. *In re Oetiker*, 24 USPQ2d at 1446. If the art cited by an examiner is deemed nonanalogous, the nonanalogous art cannot be used to support a *prima facie* case for obviousness. *Id.*

1. Israel 4,466,610

Israel is directed to a light weight exerciser or club. The exerciser or club is adapted to assist the user to perform stretching, isometric, isotonic, and isokinetic exercises. (See Abstract). Israel has nothing to do with welding, much less connectors for welders. As such, Israel is not in Applicant's field of endeavor. It is also unreasonable to assert that one skilled in the art of welding charged with the task of improving the way in which cables are connected to welders or wire feeders for welders would be expected or motivated to look at an exercise club to find a solution to a welding cable issue. The issues associated with exercise equipment such as the one disclosed in Israel are not pertinent to any problem associated with welding, much less problems associated with the connection of welding cables to a welder or wire feeder.

The Examiner rejected Applicant's previous assertion that Israel was nonanalogous art. The Examiner stated that Israel was cited to show that the grip configuration of the coupling sleeve was an “ubiquitous gripping design”. In essence, the Examiner asserted that the gripping structure was used in countless applications. Although Applicant has no information to verify or refute the Examiner's assertion, Applicant is unaware of such configuration being used on a cable connector for a welding cable. As such, Applicant disagrees with the Examiner's assertion that the grip configuration of the coupling sleeve defined in the claims of the present invention is an “ubiquitous gripping design”. Applicant also submits that Israel does not satisfy either test for analogous art as set forth by the Federal Circuit.

In view of the fact that Israel is not analogous art pursuant to the test set forth by the Federal Circuit, Applicant submits that the rejection to the claims which was based on a combination of references that included Israel should be withdrawn. The Federal Circuit has held that “the combination of elements from nonanalogous sources, in a manner that reconstructs the applicant’s invention only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness. *In re Oetiker*, 24 USPQ2d at 1446. Therefore, the rejection of claims 1, 2, 7-21 and 23-64 is improper and should be withdrawn.

2. Ellis 5,439,386

Ellis is directed to a sealed quick disconnect RF connector for use with hardline coaxial cable. (See Abstract). Ellis has nothing to do with welding, much less connectors for welders. As such, Ellis is not in Applicant’s field of endeavor. In addition, Ellis would not be used by one skilled in the art of welding charged with the task of improving the way in which cables are connected to welders or wire feeders for welders to solve a connection problem associated with welding cables. The issues associated with coaxial cable are different from the issues associated with welding, much less issues associated with the connection of welding cables to a welder or wire feeder.

The Examiner asserted that Ellis is associated with electric connectors, thus is in the same field as Applicant’s invention. The field of electric connectors as defined by the Examiner is too broad. In a world that manufactures and uses hundreds of thousands of different electronic devices and electric powered devices, it is unreasonable that one skilled in the art would look to any type of electric connector to solve a problem associated with a particular type of connector. Due to the multitude of electrical devices, each electrical device has its own particular issues (e.g., shielding issues, resistance issues, heating issues, size issues, current issues, voltage issues, sealing issues, etc.). Ellis is directed to the particular issue of a sealed quick disconnect RF connector for coaxial

cable. Coaxial cable is used to transmit audio-visual signals. These signals are low current signals. The coaxial cable is shielded to prevent surrounding noise from adversely affecting the audio-visual signals. Coaxial cable is not used and cannot be used as welding cable since the coaxial cable is not designed to transmit large currents as required in a welding application. Indeed, the coaxial cable would be damaged if used as a welding cable.

Applicant submits that one skilled in the art of welders would look at art pertaining to welders or high current connectors when attempting to solve a problem associated with welding cable connectors. In addition to welders, there are many applications wherein electric cables are used to transmit large amounts of current. Applicant submits that art pertaining to these types of applications would be pertinent to problems associated with welding cables. Applicant submits that it is unreasonable for a person of ordinary skill in the art, seeking to solve a problem associated with welding cable connectors, to be expected or motivated to look to coaxial cable connectors or any type of low current electrical connector for a solution to such problem.

The Examiner further asserted that Ellis discloses a connector that has the same structure and function as the welder cable coupler disclosed and claimed in the present invention. The Examiner used this assertion to further support the position that Ellis is analogous art. Applicant disagrees with the Examiner's conclusion that Ellis discloses a connector that has the same structure and function as the welder cable coupler disclosed and claimed in the present invention. Applicant will describe in more detail below the differences between the connector of Ellis and the coupler defined in the claims.

In view of the fact that Ellis is not analogous art pursuant to the test set forth by the Federal Circuit, Applicant submits that the rejection of the claims which was based on a combination of references that included Ellis should be withdrawn. *In re Oetiker*, 24 USPQ2d at 1446. Therefore,

the rejection of claims 1, 2, 7-21 and 23-64 is improper and should be withdrawn.

3. Glover 3,824,526 & Herrmann 4,090,759

Both Glover and Herrmann pertain to miniature high voltage connectors. These two references have nothing to do with welding, much less connectors for welders. As such, Glover and Herrmann are not in Applicant's field of endeavor. In addition, Glover and Herrmann would not be used by one skilled in the art of welding charged with the task of improving the way in which cables are connected to welders or wire feeders for welders. The issues associated with miniature high voltage connectors are different from the issues associated with welding. The connections associated with welding cables are not miniature connections or high voltage connections. The welding cable is designed to transmit large currents and voltages that are typically less than 120 V. The special issues associated with small high voltage connections do not exist for weld cable connectors.

In view of the fact that Glover and Herrmann are not analogous art pursuant to the test set forth by the Federal Circuit, Applicant submits that rejection to the claims which was based on a combination of references that included Glover and/or Herrmann should be withdrawn. *In re Oetiker*, 24 USPQ2d at 1446. Therefore, the rejection of claims 8-13, 15, 17, 20 and 23-64 is improper and should be withdrawn.

B. The Section 103 Rejection

The Examiner maintained that the APA disclosed every limitation in independent claims 1 and 21 except that the joining cavity does not engage the outer threaded surface of the cable connection after a majority of the electrical coupling cavity is at least partially telescopically inserted in the cable connection sleeve. Applicant disagrees. The APA does not disclose, with respect to claim 1, the following claim elements: 1) a joining cavity designed to at least partially engage an outer threaded surface of said cable connection sleeve after a majority of said electrical coupling

cavity is at least partially telescopically inserted in said cable connection sleeve, 2) said gripping member on said coupling sleeve including a plurality of nodes substantially symmetrically oriented on said coupling sleeve to form a generally star-shape configuration.

In addition, the APA does not disclose, with respect to claim 21, the following claim elements: 1) said electrical connectors in said coupling cavity designed to be electrically connected to corresponding electrical connectors in said cable connection sleeve at least when said coupling jacket is partially telescopically received in said cable connection sleeve, 2) said coupling sleeve including a joining cavity having a connection member designed to at least partially engage an outer surface of said cable connection sleeve after said electrical coupling cavity is at least partially telescopically inserted in said cable connection sleeve and said electrical connector in said coupling cavity is at least partially electrically connected to the corresponding electrical connector in said cable connection sleeve.

The Examiner cited Ellis in combination with the APA to over come the deficiencies of the APA. The connection configuration of Ellis is significantly different from the coupler of the present invention or the coupler disclosed in the APA. As previously stated, Ellis does not disclose a coupler for use in connecting a high current welding cable. In addition, Ellis does not disclose with respect to claim 1 and/or claim 21 the following limitations: 1) a welder cable coupler on a welder housing or wire feeder for conveniently connecting a welder cable to said welding housing or wire feeder, 2) said welder coupler having a coupling jacket which includes an electrical coupling cavity having a plurality of electrical connectors positioned therein, 3) said plurality of electrical connectors in said coupling cavity designed to be electrically connected to corresponding electrical connectors in said cable connection sleeve at least when said coupling jacket is partially telescopically received in said cable connection sleeve, 4) said coupling sleeve including a gripping member, 5) said joining

cavity designed to at least partially engage an outer threaded surface of said cable connection sleeve after a majority of said electrical coupling cavity is at least partially telescopically inserted in said cable connection sleeve, and 6) said gripping member on said coupling sleeve including a plurality of nodes substantially symmetrically oriented on said coupling sleeve to form a generally star-shape configuration.

As indicated above, Ellis does not disclose, teach or suggest a welder coupler. Ellis does not disclose, teach or suggest a welder coupler on a welder housing or wire feeder. The coupler of Ellis is positioned on the coaxial cable, not the device being connected to the coaxial cable. This arrangement is opposite of the arrangement defined in the present invention. Ellis does not disclose, teach or suggest a welder coupler having a coupling jacket which includes an electrical coupling cavity having a plurality of electrical connectors positioned therein. Ellis only discloses a single wire connection since a coaxial cable only has a single wire. Ellis does not disclose, teach or suggest a coupling sleeve that includes a gripping member that includes a plurality of nodes or a gripping member that includes a node substantially symmetrically oriented on said coupling sleeve or a gripping member that forms a generally star-shape configuration. Ellis does not disclose, teach or suggest a joining cavity that is designed to at least partially engage an outer threaded surface of said cable connection sleeve after a majority of said electrical coupling cavity is at least partially telescopically inserted in said cable connection sleeve. Because Ellis has a much different configuration from the present invention, Ellis cannot meet this limitation. For instance, Ellis has no coupling cavity as defined in the present invention. In view of the deficiencies of Ellis, there are no teachings in Ellis that would motivate one skilled in the art to take selected teachings from Ellis relating to a different type and configured coupler and combine such selected teachings with the APA to make obvious the coupler defined in claim 1 and 21. The Examiner's assertions that it

would be obvious to modify Ellis and to use such modification in combination with the APA to support an obviousness rejection of claim 1 and 21 is not supported by any of the references of record. Applicant submits that the Examiner is using impermissible hindsight to reconstruct Applicant's invention.

The Examiner's reliance on Israel to support a rejection of any of the pending claims is not based in fact or law. As set forth above, Israel has nothing to do with any type of connector or with any type of electrical device. The supposed nodes on the exercise device of Israel do not even have the same configuration as defined in claim 1. The combination of Israel, though improper, with the APA and Ellis does not support a rejection of any of the pending claims.

As set forth above, independent claim 1 and 21 are not obvious over the cited art of record. As such claims 1 and 21 and all the claims dependent therefrom are allowable over the cited art of record. The Examiner cited Glover and/or Herrmann in combination with the APA, Ellis and Israel to support a rejection of several of the dependent claims. As set forth above, Glover and Herrmann are improper references to be cited against any of the claims of the present invention. In addition, the teachings of Glover and Herrmann do not overcome the deficiencies of the APA, Ellis and Israel as set forth above. Applicant submits that claims 1, 2, 7-21 and 23-43 are patentably distinct from the cited art of record.

The Examiner made a general assertion concerning claims 44-64 that the method claims are obvious in view of the APA, Ellis, Glover and Herrmann. The Examiner's basis for making this rejection is not supported by the cited art for at least the reasons set forth above with respect to claims 1, 2, 7-21 and 23-43. Applicant submits that claims 44-64 are also patentably distinct from the cited art of record.

Applicant submits the claims presently pending in the above-identified patent application are

in condition for allowance and a notice to that effect is earnestly solicited. However, should the Examiner determine the Amendment does not place the above-identified patent application in allowable form, it is requested that the amendment be entered to place the patent application in better form for purposes of appeal.

Respectfully submitted,
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